**Geologic Time Scale**

4.2.3 Discuss current estimates of numbers of species and past and present rates of extinction

4.1.4 Explain how plate activity has influenced evolution and biodiversity

**In red, indicate on the table below where major extinction events occurred.**

**In blue, indicate when the super continent Pangaea existed**

**In green, indicate when the continents Laurasia & Gondwanaland existed**

**In orange, indicate when separate continents formed**

|  |  |  |
| --- | --- | --- |
| **Eon** | **Organic Changes** | **Inorganic Changes** |
| **Precambrian** |  |  |
| **Paleozoic** |  |  |
| **Mesozoic** |  |  |
| **Cenozoic** |  |  |

Questions:

1. How many extinctions have occurred/ are occurring?
2. Where did the oxygen come from (2.7bya)?
3. During what PERIOD was the majority of our coal formed?
4. What event preceded the development of multi-celled organisms? *(hint: did they need sun block?)***After researching online or your text, answer the following questions**
5. How many species have existed throughout the history of the Earth? (this number will vary)
6. How many species are though to currently exist on Earth?
7. How many species have been identified and named?
8. What is the hypothesized rate of extinction up to now?
9. What is the current rate of extinction?
10. What are the major natural ways that organisms become extinct? (come up with at least 5)
11. What are the major human-related causes of extinction? (come up with at least 7)
12. Are there certain factors that impact whether or not a species will become extinct? What are these factors and how might they cause/prevent a species from becoming extinct?